

REMARKS

Claims 1-18 are pending. Claims 1 and 18 are independent.

The Office Action rejects claims 1-18 under 35 U.S.C. §102(e) over U.S. Patent No. 6,587,739 to Abrams et al. This rejection is respectfully traversed.

Applicants' independent claim 1 recites, in combination with other claimed features, a process control system comprising measurement devices and actuators. All the measurement devices and actuators contain means for information processing and for data interchange between the measurement devices and actuators. All the measurement devices and actuators are connected by means for bidirectional data interchange.

The Examiner is reminded that Applicants' independent claim 1 was amended to recite "a plurality of the measurement devices and actuators have means for data interchange with a service appliance which can be connected." Applicants note that this portion of claim 1 relates to data interchange with a service appliance.

Such features encompass Applicants' exemplary embodiment as illustrated in Fig. 1 wherein sensors 2a, 2b and 2c and actuator 3 each include the processor 1 and an interface 5. Each are connected via bidirectional data interchange 4d.

On page 2 of the Office Action, the Examiner identifies sensor element 230, shown in Fig. 2 of the Abrams patent, as a measurement device and identifies temperature sensor and microcontroller, shown in Fig. 18c, as an actuator. The Examiner goes on to allege that the temperature sensor element 230, shown in Fig. 2, contains means for information processing. The Examiner alleges that this is supported at column 8 lines 7-10 of the Abrams patent. However, this portion relates

to controllers and not to the sensor elements 230 of Fig. 2 or the temperature sensor and microcontroller shown in Fig. 18c.

The Abrams patent is directed to an appliance communication and control system. The various devices are capable of receiving and/or sending data over power lines 27 using a power line communications (PLC) protocol. As shown in Fig. 2, each device 200 includes a central processing unit (CPU) 220 and some form of input/output controller 228 coupled to one or more of a set of sensors 230, and actuators, controllers 240, etc. As shown in Fig. 2, the sensors 230 includes an arrow which points towards the I/O 228. Conversely, the actuators, controllers 240 include an arrow that points from the I/O 228 to the actuator, controllers 240. This is a clear indication that the sensors 230 and actuators, controllers 240 are not connected by means for bidirectional data interchange. The arrows represent the direction of communication. The sensors 230 communicate to the I/O 228, a piece of information which is not processed. The processing is performed by the CPU 220.

The Examiner refers to the disclosure in the Abrams patent in col. 6, lines 64-65 which discloses that information will still be available at the appliance and can be retrieved as needed as evidence of data interchange. However, this refers to controllers and not to actuators or measurement devices. As described in the Abrams patent at column 5, the appliances which include the sensors and actuators are connected for bidirectional communication with the console 50 or the PDA 292. It is not the sensors and actuators in the appliances which are connected for bidirectional communication. Each of the sensors and actuators in Abrams are connected to, for example, a microcontroller as shown in Fig. 18c.

In Fig. 18c, the bread maker 1800 includes, for example, lid sensor 1871, temperature sensor 1840, heater control 242 and motor monitor 241. The microcontroller 205 is coupled to and receives input from the sensors. See col. 21, line 35 et seq. However, there is no disclosure, for example, that the lid sensor communicates with the temperature sensor. In the Response to Arguments, the Examiner states "the fact that the lid sensor doesn't communication [sic] with the temperature sensor is immaterial since this feature is not claimed. Claim 1 states 'a plurality, preferably all, of the measurement devices.'" First, the Examiner has confused paragraphs a and c of claim 1. Claim 1 a) recites all the measurement devices and actuators contain means for information processing and for data interchange between the measurement devices and actuators. Paragraph c) of claim 1 recites a plurality of the measurement devices and actuators have means for data interchange with a service appliance which can be connected. Thus, the Examiner's reference to the phrase "preferably all" relates to paragraph c) not paragraph a) of claim 1 [this phrase no longer exists in claim 1 as amended]. Further, the fact that the lid sensor doesn't communicate with the temperature sensor is material. Paragraph a) of claim 1 recites all the measurement devices and actuators contain means for information processing and for data interchange between the measurement devices and actuators. Thus, in order for the features of claim 1 to be disclosed in Fig. 18c, the lid sensor and the temperature sensor would have to include both means for information processing and means for data interchange. In Fig. 18c the lid sensor and the temperature sensor contain neither. As pointed out by the Examiner in the Response to Arguments, the microcontroller 205 and the temperature sensor communicate. But the temperature sensor and the

lid sensor rely on the microcontroller 205 to perform the functions of information processing and the function of data interchange. Thus, the Abrams patent does not disclose all the measurement devices and actuators are connected by means for bidirectional data interchange as in Applicants' independent claim 1. Further, the provision of the CPU 220 or the microcontroller 205 means that all the measurement devices and actuators do not contain means for information processing, in combination with the other claimed features, as in Applicants' independent claim 1.

Applicants' independent claim 18 is allowable for reasons similar to those discussed above with respect to Applicants' independent claim 1.


The dependent claims are allowable for at least the reasons discussed above as well as for the individual features they recite.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with the application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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